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MAY 31 1994

May 13, 1994

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

Hon. Reed E. Hundt, Chairman  
Federal Communications Commission  
1919 M Street, N.W., Room 814  
Washington, D.C. 20554

William E. Kennard, General Counsel  
Federal Communications Commission  
1919 M Street, N.W., Room 614  
Washington, D.C. 20554

Re: Letters dated May 5, 1994 and May 9, 1994 from Richard E. Wiley, Esq., on behalf of Mobile Telecommunication Technologies Corp., in connection with the application of Nationwide Wireless Network Corp. (formerly known as NWN Corporation) for a Nationwide Narrowband PCS Authorization, File No. 22888-CD-P/L-94

Dear Messrs. Hundt and Kennard:

BellSouth has been served, by mail, with copies of letters to you dated May 5 and May 9, 1994 by counsel for Mobile Telecommunication Technologies Corp. ("Mtel"), the Narrowband PCS pioneer's preference winner. These letters referenced a May 3, 1994 letter from Chairman Dingell, Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, to the General Counsel of the Commission questioning the Commission's PCS pioneer's preference awards. According to Mtel's attorney, Chairman Dingell's letter relates to the Mtel award in only the narrowest respects. BellSouth disagrees.

Chairman Dingell's letter expressed concern about four fundamental issues relating to all of the pioneer preference awards -- whether the FCC's rules "were egregiously and repeatedly violated," whether the FCC "foreclosed opportunities for notice and comment" and "encouraged *ex parte* contacts," whether the value of the pioneer's preferences "is substantially in excess of the value of the contributions of the pioneers," and whether the

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FCC's procedures were "not sufficiently rigorous" for awarding valuable pioneer's preferences. The letter also asks the FCC to respond to a number of detailed questions. Questions 4, 5, 6, 7, 8, 9, 10, and 11 relate directly or indirectly to the award of a pioneer's preference to Mtel.

Mtel's counsel did not address Chairman Dingell's fundamental concerns and addressed only portions of one question posed in the Dingell letter. The May 5 letter, which Mtel sent to the General Counsel, asserted that the only issue directly addressing Mtel was contained in Question 9, and he affirmed that an Mtel progress report was served on all parties. Only one of six subparts of Question 9, however, involved the service issue. Without explaining why another letter was necessary, Mtel's counsel sent a second letter, this time addressed to Chairman Hundt, asserting that Mtel did not have any *ex parte* contacts with the FCC concerning its pioneer's preference request. The letter to Chairman Hundt incorrectly claims that Mtel's application "has been subjected to full public comment and now is ripe for action." In fact, the application is deficient in many respects and cannot be granted because substantial and material questions of fact remain unresolved.

The most critical defect in Mtel's application is that Mtel refuses to make a commitment to use the modulation techniques for which it received a pioneer's preference. BellSouth's recent filings show that Mtel appears to have jettisoned its pioneer's preference technology in favor of a different modulation technique developed by Motorola. In the face of specific challenges, Mtel has avoided making a demonstrative statement regarding the technology it plans to employ.

The Commission should not grant Mtel a free license without a substantial assurance that it will, in fact, employ the technology that was the *quid pro quo* for the award of the preference. The public will not reap any benefit from technological innovation in exchange for the valuable spectrum given away to Mtel -- and Mtel will receive an even greater windfall, if it is free to disregard the technology that won it the preference. This matter is of direct relevance to Chairman Dingell's concerns.

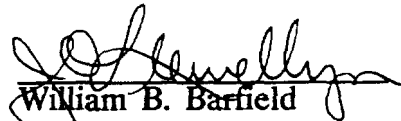
Mtel has had numerous opportunities to respond to the comments and correct the fatal defects in its application, but even after a series of amendments and responsive pleadings Mtel has failed to address many of the deficiencies raised by BellSouth and others. BellSouth has identified these deficiencies, with great clarity, in its May 6, 1994 filing, a copy of which is enclosed.

Moreover, the application will have to be amended further to comply with the new Narrowband PCS rules released in the *Third Report and Order* in PP Docket 93-253, FCC 94-98 (May 10, 1994), which do not become effective until 30 days after Federal Register publication. Of course, the public has a right to comment on any such amendments.

In short, the application is certainly not ripe for an "immediate grant."

Respectfully submitted,

By:

  
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Enclosure

cc: Chairman John Dingell  
Commissioner James H. Quello  
Commissioner Andrew C. Barrett  
William F. Caton, Acting Secretary  
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Certificate of Service

I, Mary Jane Adcock, hereby certify that on this 13th day of May, 1994, copies of the foregoing letter were hand carried to the following:

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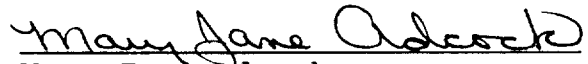
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\*By First Class Mail

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

MAY 6 '94

In re application of )

NWN Corporation )

a/k/a )

Mobile Telecommunication Technologies Corp. )

d/b/a NWN Corporation )

a/k/a )

Nationwide Wireless Network Corp. )

For a New 50 kHz Nationwide Authorization in )  
the Narrowband Personal Communications )  
Service Under Part 24 of the Commission's Rules )

File No. 22888-CD-P/L-94

To: The Commission

**REPLY TO MTEL "RESPONSE"**

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May 6, 1994

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### EXHIBITS:

Exhibit A. Further Declaration of Alain C. Briançon

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In re application of )

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a/k/a )

Mobile Telecommunication Technologies Corp. )

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For a New 50 kHz Nationwide Authorization in )  
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Service Under Part 24 of the Commission's Rules )

File No. 22888-CD-P/L-94

To: The Commission

**REPLY TO MTEL "RESPONSE"**

BellSouth Corporation, BellSouth Telecommunications, Inc., BellSouth Cellular Corporation, and Mobile Communications Corporation of America (collectively, "BellSouth"), by their attorneys, hereby submit their Reply to the April 26, 1994 letter ("Response") filed by Mobile Telecommunication Technologies Corp. ("Mtel") and Nationwide Wireless Network Corp. ("Nationwide") in response to BellSouth's April 19, 1994 Reply to Mtel Opposition.

**INTRODUCTION**

At the outset, BellSouth wishes to respond to the unwarranted charge by Mtel and Nationwide that BellSouth has "attempt[ed] to block improved services and increased competition in advanced messaging . . . [and] offered arguments ranging from the repetitive to the frivolous."<sup>1/</sup>

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<sup>1/</sup> Response at 3.

BellSouth has no objection to Mtel's introduction of improved services or increasing the competition in advanced messaging. Mtel has two choices: It can obtain a license at the auction, in which case it can use any innovative technology the rules permit -- or it can commit to use the specific technology for which it was awarded a pioneer' preference and avoid the need to participate in the auction.

Mtel cannot have it both ways. It should not be given a free license, exempt from the auction process, and remain free to abandon the technology for which it was awarded a pioneer's preference. The Commission cannot make an informed decision on the instant application for a free license until Mtel discloses all of the relevant facts about the technology it plans to use.

Despite Mtel's and Nationwide's shrill accusations that BellSouth's filings have been "repetitive" and "frivolous," BellSouth's filings have caused Mtel and Nationwide to admit that they repeatedly made representations to the Commission that were untrue.<sup>2/</sup> Indeed, Mtel's Executive Vice President and Nationwide's President, Jai P. Bhagat, who signed all of the FCC filings at issue, said even he was unaware of the true facts until he reviewed BellSouth's Reply:

On April 21, 1994, in discussions related to the Reply of BellSouth, I learned for the first time that, due to miscommunications, the incorporation of the applicant subsidiary was delayed until February 25, 1994, and it was incorporated as "National Wireless Network Corp." The corporate name was changed to "Nationwide Wireless Network Corp." on March 22, 1994, which occasioned the March 25, 1994, amendment.<sup>3/</sup>

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<sup>2/</sup> See Response at 1-2; Declaration of Jai P. Bhagat at 1.

<sup>3/</sup> Declaration of Jai P. Bhagat at 1. In light of Mr. Bhagat's statement, BellSouth cannot understand why Mtel and Nationwide take the position that BellSouth's questions concerning the identity and corporate status of the applicant "were improperly raised for  
(continued...)

In short, BellSouth's pleadings in this proceeding have been neither repetitive nor frivolous. Instead, they have served to inject a degree of accuracy and completeness into the record before the Commission.

As shown below, the application still contains incorrect factual representations, after numerous "minor" amendments, and it continues to lack any factual basis on which the Commission can decide whether Nationwide will substantially use the technology for which Mtel won a pioneer's preference. Accordingly, the application should be dismissed without prejudice.

## DISCUSSION

### I. THE APPLICATION SHOULD BE DISMISSED WITHOUT PREJUDICE

#### A. **Mtel Now Reluctantly Admits That NWN Corp. Was Not a Legal Entity When the Application Was Filed, That the Application Contained a False Certification that NWN Corp. Was Incorporated, and That Its March Amendment Contained False Information as Well**

BellSouth showed in its Reply that the representations made by Mtel, NWN Corp., and Nationwide concerning the identity and corporate status of the applicant were contrary to Delaware corporate records. Mtel and Nationwide try to belittle the importance of the information at issue, but they now reluctantly admit that their previous representations were not true in the following respects:

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<sup>3/</sup>(...continued)

the first time in the context of a Reply to Mtel's Opposition." Response at 1 n.1. Even Mtel's and Nationwide's counsel concede that "some confusion did exist with respect to the incorporation and corporate name of the applicant." *Id.* at 1.

- (1) On February 10, 1994, when "NWN Corporation" filed its application, it was not incorporated in Delaware, contrary to the representations in the application.<sup>4/</sup>
- (2) The Mtel subsidiary incorporated on February 25, 1994 was not "NWN Corporation" but National Wireless Network Corp., and its name was changed to Nationwide Wireless Network Corp. on March 22, 1994.<sup>5/</sup>
- (3) The amendment filed with the FCC on March 25, 1994,<sup>6/</sup> by "NWN Corporation" incorrectly represented that "NWN Corporation" was incorporated, that its certificate of incorporation had been amended to change the name of "NWN Corporation" to Nationwide Wireless Network Corporation, and that the March 25 amendment "merely is a name change."<sup>7/</sup>

In short, even taking the March 25 amendment into account,<sup>8/</sup> the application still contains factual representations that Mtel and Nationwide admit are contrary to the truth. As a result, the Commission does not have a full and accurate application before it. Accordingly, it should dismiss the application without prejudice.

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<sup>4/</sup> Response at 2, Declaration at Jai P. Bhagat at 1.

<sup>5/</sup> Response at 2, Declaration of Jai P. Bhagat at 1.

<sup>6/</sup> BellSouth takes issue with the charge that it "conspicuously fails to acknowledge that Mtel amended its application on March 25, 1994." Response at 1. BellSouth was not served with the March 25 amendment, which was filed before BellSouth's petition. BellSouth nevertheless made repeated searches of the Commission's files, before filing both its Petition and its Reply, and no such amendment was present in the Commission's public files. See Reply at 15 n.41.

<sup>7/</sup> Compare Response at 2, Declaration of Jai P. Bhagat at 1 with March 25, 1994 amendment. Mtel had an incentive to attempt to portray the effect of the March 25 amendment as merely a name change to an existing corporation. If Mtel had admitted that the applicant, "NWN Corporation," had never existed as a legal entity, it would risk classification of the amendment a major amendment, resulting in a new public notice period.

<sup>8/</sup> Mtel and Nationwide now maintain that "Mtel has consistently used 'Nationwide Wireless Network Corporation' in its application documents as the name of the proposed licensee." Response at 2 n.2. That simply is not correct. Every reference to the name of the applicant in the application filed February 10, 1994 was to "NWN Corporation," and not to "Nationwide Wireless Network Corporation."

**B. Questions Remain About the Corporate Status of the Applicant**

Nationwide and Mtel still cannot get the facts straight. They claim that the application, as amended March 25 to reflect the new name, "is consistent with the information set forth in the Delaware corporate records for Nationwide Wireless Network Corp."<sup>9/</sup> BellSouth submits this is not correct.

The application filed by "NWN Corporation" listed three directors: Messrs. Palmer, Bhagat, and Compton. Nevertheless, when National Wireless Network Corp. was eventually incorporated on February 25, its sole director, according to Delaware corporate records, was Leonard G. Kriss, who was not listed as a director in the FCC application. Mr. Kriss was still the sole director on March 22, 1994, when National Wireless Network Corp. changed its name to Nationwide Wireless Network Corp. Three days later, on March 25, the FCC application was amended to name Nationwide Wireless Network Corp. as the applicant, but no mention was made of any change in directors from those specified in the application.

The Response maintains that the persons listed in the original application as directors are in fact National's directors.<sup>10/</sup> The Response goes so far as to say that "[t]he application, as amended on March 25, 1994, is accurate and complete and is consistent with Delaware corporate information for the applicant subsidiary."<sup>11/</sup> BellSouth submits that the inconsistency of the FCC application, as amended, with the Delaware corporate records

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<sup>9/</sup> Response at 1.

<sup>10/</sup> Declaration of Jai P. Bhagat at 2.

<sup>11/</sup> Response at 3; see Declaration of Jai P. Bhagat at 2 (listing Messrs. Palmer, Bhagat, and Compton -- but not Mr. Kriss -- as directors).

is plainly evident and entirely unexplained.<sup>12/</sup> Has the board of directors of the "applicant" changed twice -- from the Palmer-Bhagat-Compton triumvirate to Mr. Kriss as sole director, and back? The consequences of such changes are hardly trivial. The Commission has held that a complete change in a licensee's board of directors constitutes a transfer of control, even if ultimate control remains unchanged in the hands of the shareholders.<sup>13/</sup>

Given the multiple changes of identity of this applicant, its apparently ever-shifting board of directors, its repeated false representations to the Commission, and its apparent unwillingness to this date to provide the Commission with full and accurate information, the Commission clearly cannot grant the application. At a minimum, the Commission should dismiss the application without prejudice, giving Mtel an opportunity to start afresh. Mtel could then decide what subsidiary is going to apply, put the subsidiary in proper corporate form, and file a new application providing the Commission with full and accurate information. Any such application would be subject to a new 30-day public notice period.

## **II. THE COMMISSION MUST DENY THE APPLICATION BECAUSE MTEL AND NATIONWIDE REFUSE TO MAKE A COMMITMENT TO USE THE TECHNOLOGY ON WHICH THE MTEL PIONEER'S PREFERENCE WAS BASED**

BellSouth demonstrated both in its Petition and in its Reply that there is a material question of fact whether Mtel and its subsidiaries will make substantial use of the technology

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<sup>12/</sup> The best evidence of who Nationwide's directors are, and the dates of their appointments, would be the corporate records of Nationwide, which would show whether Nationwide has held a shareholders' meeting to elect new directors. Mtel has chosen not to file these records. Therefore, the Commission must rely on the official records of the Delaware Secretary of State, which show Mr. Kriss to be the sole director.

<sup>13/</sup> *Committee for Full Value of Storer Communications, Inc.*, 101 FCC 2d 434 (1985), *aff'd sub nom. Storer Communications, Inc. v. FCC*, 763 F.2d 436 (D.C. Cir. 1985).

on which the Mtel pioneer's preference award was based. In the Opposition, Mtel and Nationwide simply stonewalled, neither confirming nor denying that it would deviate from the specific modulation technologies it had described in its pioneer's preference filings. In the Response, they once again make no commitment and provide no facts concerning the technologies that will be used.

Nevertheless, it is clear from the Response that they do, in fact, plan to deviate from the two specific forms of "orthogonal M-ary modulation" or "Multi-Carrier Modulation" -- i.e., MOOK and PFSK<sup>14/</sup> -- on which Mtel relied in seeking a pioneer's preference and on which the FCC relied in awarding a pioneer's preference to Mtel. They object to BellSouth's pressing the need for a commitment to these technologies, stating:

[BellSouth has] attempted to straitjacket Mtel's award by arguing that any deviation from its innovations emerging through further research and development should be precluded . . . .<sup>15/</sup>

Mtel's and Nationwide's unwillingness to use the technologies that were the basis for the award is further apparent from the following statement in a footnote to their Response:

As fully documented in prior filings, Mtel is employing multi-carrier modulation consistent with its proposals, but nowhere has the Commission held that a Pioneer Preference holder cannot improve or modify its innovation. Instead, the Commission has wisely afforded Pioneer Preference awardees latitude in refining and deploying technological innovations so long as there is "substantial use" of the innovation for which the award was made. Nothing more or less is required.<sup>16/</sup>

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<sup>14/</sup> MOOK is Multitone On-Off Keying, and PFSK is Permutation Frequency Shift Keying.

<sup>15/</sup> Response at 3.

<sup>16/</sup> *Id.* at 3 n.4.

Mtel and Nationwide refuse to respond with any specificity to the substantial and material technical allegations made concerning the absence of any evidence that they will employ the technology for which Mtel was awarded its pioneer's preference. Nationwide's President, Jai P. Bhagat, has both the qualifications and the knowledge to present detailed technical evidence concerning Nationwide's planned modulation technique, but his declarations are silent on this. Instead of presenting competent technical evidence responding to the declarations of BellSouth's technical expert, Mtel and Nationwide present only lawyers' prose.

Nevertheless, the evasive language quoted above make clear that Mtel and Nationwide have no intention of using MOOK or PFSK. BellSouth has reason to believe that Mtel's Nationwide Wireless Network will use a Motorola-developed modulation scheme known as Two-way Asymmetric Messaging ("TAM") configured for single-frequency operation.<sup>17/</sup> This is the same technique that BellSouth's MobileComm subsidiary is considering using if it wins a license at the Narrowband PCS auction.

TAM is fundamentally different from the MOOK and PFSK techniques that Mtel described as "Multi-Carrier Modulation" or MCM. It is actually a "Multiple Carrier Per Channel" modulation scheme.<sup>18/</sup> The difference between these two technological approaches is set forth in some detail in BellSouth's Reply.<sup>19/</sup>

MCPC modulation techniques, including TAM, are not merely improvements or modifications to the MCM modulation techniques that Mtel showed to be feasible for high-

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<sup>17/</sup> See Further Declaration of Alain C. Briançon, attached as Exhibit A, at 1-2.

<sup>18/</sup> *Id.* at 1.

<sup>19/</sup> See Reply at 9, Reply Declaration of Alain C. Briançon at 2-4.

speed simulcast messaging in its pioneer's preference filings. TAM is similar to MCM only in that it uses multiple carriers. It differs radically in how those carriers are used: Four-channel MCM techniques use all four carriers simultaneously and interdependently to transmit a single high-speed data stream, while four-channel MCPC techniques such as TAM use four separate, independent carriers to carry four unrelated medium-speed data streams.<sup>20/</sup> From that perspective, TAM is closer to the RAM Mobile Data Mobitex technology which MobileComm proposed to use in its request for a narrowband PCS pioneer's preference, which the FCC denied.<sup>21/</sup> TAM is no more an enhancement of MCM than a pair of analog phone lines is an enhancement of ISDN. Simply put, TAM is a different technology, developed by a different company, and using TAM would not constitute "substantial use" of Mtel's innovation.

BellSouth submits that the Commission cannot merely rely on Mtel's and Nationwide's assurances that they will substantially use "multi-carrier modulation consistent with its proposals."<sup>22/</sup> Mtel's and Nationwide's modulation technique is not, as they claim, "fully documented in prior filings"<sup>23/</sup> -- in fact, they have scrupulously avoided providing any information about the modulation technique they will use.

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<sup>20/</sup> See Reply at 9, Reply Declaration of Alain C. Briançon at 3.

<sup>21/</sup> See Further Declaration of Alain C. Briançon at 1; *New Narrowband Personal Communications Services*, Gen. Docket 90-314 & ET Docket 92-100, *First Report and Order*, 8 FCC Rcd. 7162 (1993) (*FR&O*), *recon. in part, Memorandum Opinion and Order*, FCC 94-30 (March 4, 1994) (*MO&O*), *appeal pending sub nom. BellSouth Corp. v. FCC*, No. 93-1518 (D.C. Cir. Aug. 20, 1993).

<sup>22/</sup> Response at 3 n.4.

<sup>23/</sup> *Id.* Notably, this claim was unaccompanied by any reference to which prior filings document the modulation techniques that will be employed.

In essence, Mtel and Nationwide are saying "trust us." The Commission cannot do that, particularly in light of Mtel's and Nationwide's lack of forthrightness regarding such basic matters as the identity and corporate status of the applicant. The Commission would have no ability to verify whether their modulation technique is substantially based on the innovations that were responsible for Mtel's pioneer's preference award. In the absence of detailed information about the modulation technique to be used, the Commission cannot grant the application.

There is a simple way for the Commission to determine whether Mtel will substantially use MCM techniques: Require Mtel to respond to an information request, under penalty of perjury, such as the following:

The modulation technique to be used in the Nationwide Wireless Network is:

- ☐ (A) MOOK\*
- ☐ (B) PFSK\*
- ☐ (C) None of the above

If (C) was checked, attach as Exhibit \_\_\_\_ a full technical description of the modulation technique to be used. Include a demonstration of the derivation of such technique from MOOK and/or PFSK, showing each incremental enhancement or improvement.

\* As defined in Mtel's Request for Pioneer's Preference.


If this information is not supplied, the Commission must dismiss the application because it lacks the necessary commitment to use the technology on which the pioneer's preference award was based.

## CONCLUSION


BellSouth respectfully submits that Mtel's application should be dismissed without prejudice.

Respectfully submitted,

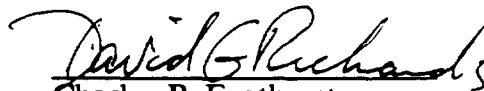
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Their attorneys

May 6, 1994

**Exhibit A**

**Further Declaration of  
Alain C. Briançon**

### **Further Declaration of Alain C. Briançon**

I, Alain C. Briançon, am the Executive Director, Product and Service Development, for Mobile Communications Corporation of America ("MobileComm"), a BellSouth company. I am supplying this further declaration in support of BellSouth's reply to an April 26, 1994 letter by Mobile Telecommunication Technologies Corp. ("Mtel") filed with the FCC in response to BellSouth's Reply to Mtel's Opposition to the Petitions to Deny the application of NWN Corporation.

None of the technical issues raised by BellSouth in its Petition or its Reply have been resolved. Mtel's lawyers, not its engineers, have made the only responses, and those have been legal rather than technical. Mtel has not provided any description of the modulation technique it will use.

As a result of my position, I have extensive knowledge of the technologies used and under development in the paging and messaging industry. It is my belief, based on my knowledge of the industry, that Mtel's Nationwide Wireless Network will use a technology developed by its principal vendor, Motorola. This technology, Two-way Asymmetric Messaging ("TAM"), uses multiple carriers in a channel to increase capacity.

TAM is not a refinement of the technology relied on by Mtel in obtaining a pioneer's preference. In seeking its pioneer's preference, Mtel relied on Multi-Carrier Modulation ("MCM") -- Multitone On-Off Keying ("MOOK") and Permutation Frequency Shift Keying ("PFSK"). MCM techniques use multiple interdependent carriers to transmit a single high-speed data stream. TAM is not based on this technique. Instead, TAM is an example of Multiple Carrier Per Channel ("MCPC") technology, as is the Mobitex technology used by RAM Mobile Data, which is an affiliate of BellSouth. TAM transmits four independent FLEX carriers with data rates of 6400 bps each, within a 50 kHz bandwidth, while Mobitex

transmits four GMSK carriers with data rates of 8000 bps within a 50 kHz bandwidth. MobileComm proposed the use of a variant on the Mobitex modulation technique in its unsuccessful pioneer's preference request. FLEX is a Motorola proprietary protocol. A hardware manufacturer must enter into a licensing agreement with Motorola to manufacture a FLEX device.

Motorola started developing FLEX before Mtel began its work on MCM. Packing four independent carriers into 50 kHz is neither new nor innovative. While TAM improves on these concepts, TAM is clearly not an outgrowth or refinement of Mtel's MCM.

Mtel has announced that it has three suppliers for its Nationwide Wireless Network project -- Motorola, Wireless Access, and Glenayre. If these companies are developing MCM products, there would appear to be no need for them to license Motorola's proprietary technologies (such as FLEX or TAM). Mtel should show that Glenayre and Wireless Access are free to sell Nationwide Wireless Network hardware to Mtel without the need for a license from Motorola.

The issue is simple: Is Mtel using MOOK, PFSK, or another technology (such as TAM)? Mtel has refused to state whether it is or is not using MOOK or PFSK, but it has objected to being "straitjacketed" from making any "deviation from its innovations". TAM would clearly be a deviation from Mtel's MOOK and PFSK "innovations".

I declare, under penalty of perjury, that the foregoing is true and correct, on information and belief.

  
Alain C. Briançon

Executed:

Date

5/6/94

Certificate of Service

I, Mary Jane Adcock, certify that on this 6th day of May, 1994, copies of the foregoing "Reply to Mtel Response" were sent via first class United States mail, postage prepaid, to the following:

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